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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/336,363	06/17/1999	KOJI MATSUYAMA	FUJO16.216	7540

7590 11/01/2002

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EXAMINER

KIM, KEVIN

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/336,363

Applicant(s)

MATSUYAMA ET AL.

Examiner

Kevin Y Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-12 have been considered but are moot in view of the new ground(s) of rejection.

Applicant amended claims such that the subject matter indicated allowable in the last Office action is now included in independent claims. However, upon reviewing the Sawahashi et al patent cited against the rejected claims, this examiner found that the patent also disclose and/or suggest the subject matter indicated allowable, i.e., claims 7 and 8. Specifically, the Accumulator (46) of the Sawahashi et al patent is considered, either alone or in combination, to read on a combination of an adder, a memory unit claimed in claims 2,9 and 12 such that correlation values are totaled for a plurality of symbols. It is regrettable that the indication of allowable subject matter was prematurely made in the last Office action and that it might have caused any inconvenience for Applicant.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 2,4,7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawahashi et al (US 5,768,306) in view of the admitted prior art.

Consider claims 7, 9 and 12. Referring to Fig. 4, Sawahashi et al discloses a detecting device comprising a “storage means” (43), a “code generation means” (44), “a correlation value obtaining means” (45) and a “detecting means” (the rest of elements in Fig.4).

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The detecting means may total correlations values, computed by and received from the correlation value obtaining means (45), for a plurality of symbols. See col.7, ll.9-21. Sawahashi failed to disclose the particulars of an accumulator that totals correlations values for a plurality of symbols. However, the use of an adder, a memory and a feedback was well known in the art for accumulating correlation values for a plurality of symbols as admitted by Applicant in Fig. 1 of the present application, indicated by reference numerals 1003 and 1004. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to import the well known accumulator structure comprised of an adder, a memory and a feedback to implement the accumulators of Sawahashi et al. Regarding claims 2, 4 and 10 see col.6, ll.24-29.

Regarding claim 11, see the accumulator (46).

4. Claim 3,5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawahashi et al in view of the admitted prior art, as applied to claim 2 above, and further in view of Shou et al (US 5,910,948).

Sawahashi et al disclose all the subject matter claimed except for “a matched filter” as a means of obtaining correlation between the stored received signal and a predetermined code sequence. Shou et al describes that a short code is detected by a matched filter and a long code is detected by a sliding correlator. Thus, it would have been obvious to one skill in the art at the time the invention was made to modify Sawahashis et al’s sliding correlator to a matched filter for the purpose of detecting a short code and/or to add a matched filter for the purpose of detecting both a long code and a short code, as taught by Shou et al.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 703-305-4082. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

kvk
October 30, 2002



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600